

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (Currently Amended) Method for transmitting data over a broadband networks having a plurality of downstream channels and an upstream channel, the method comprising the steps of:

receiving, at a broadband multimedia router and from a digital set top box (STB) via said upstream channel, an upstream data packet having an upstream destination address included therein ~~from a digital set top box (STB), via said upstream channel;~~

directing, by said broadband media router, said upstream data packet to an addressable destination, designated by said upstream destination address included in said upstream data packet;

receiving, at said broadband multimedia router and from said addressable destination, a downstream data packet having a downstream destination address associated with the digital STB included therein ~~from said addressable destination;~~

converting said downstream data packet to one or more MPEG transport packets suitable for transmission to said digital STB ~~for conveying~~ in a selected one of said downstream channels, said MPEG transport packets including a program number (PN) value of a video session to which the digital STB is tuned ~~thereby producing transport packets;~~

directing transmitting said MPEG transport packets to said digital STB, via said selected downstream channel.

2. (Original) The method according to claim 1, wherein said step of converting is performed according to a plurality of predetermined network resources.
3. (Original) The method according to claim 2, further comprising the step of allocating said network resources.
4. (Original) The method according to claim 2, further comprising the steps of:
 - receiving a data session resource allocation request; and,
 - allocating said network resources, according to said data session resource allocation request.
5. (Original) The method according to claim 4, further comprising the step of authorizing said data session resource allocation request.
6. (Currently Amended) The method according to claim 1, further comprising the step of controlling the a transmission rate of said MPEG transport packets, via said selected downstream channel.
7. (Original) The method according to claim 1, wherein said downstream channels are In-Band channels and where said upstream channel is an Out-Of-Band channel.
8. (Currently Amended) ~~Method for transmitting data packets over media transport channels, to a remote unit, said remote unit being associated with a destination address embedded in said data packets, the~~ A method comprising the steps of:
 - establishing a data session between a digital set top box (STB) communicatively coupled to a hybrid fiber coax (HFC) network and an addressable Internet destination over a selected one of a number of downstream media transport channel channels adapted to communicate transport packets over said HFC network, said data session including data packets having address information indicative of said STB and said addressable Internet destination embedded therein

and said selected downstream media transport channel corresponding to a media session to which the STB is tuned;

allocating logical media resources over said downstream media transport channel for said data session;

converting said data packets to data transport packets embedding said allocated logical media resources, according to a media transport specification; and,

transmitting said data transport packets via said selected ~~at least one~~ downstream media transport channel.

9. (Currently Amended) The method according to claim 8, wherein said logical media resources include a program number and a program identification.

10. (Currently Amended) The method according to claim 8, further comprising ~~the step of~~ transmitting ~~a~~ the media program session to said ~~remote unit,~~ STB as media transport packets according to said media transport specification, and via said ~~selected~~ downstream media transport channel, said data transport packets and said media transport packets sharing a ~~single~~ common transport program number.

11. (Currently Amended) The method according to claim 10, further comprising ~~the steps of:~~ producing at least one data image according to said data session; and, presenting said at least one data image in association with at least one media image produced according to said media ~~program session~~.

12. (Currently Amended) The method according to claim 11, wherein ~~said step of~~ presenting includes at least partially overlaying said at least one data image over said at least one media image.

13. (Cancelled)

14. (Currently Amended) The method according to claim 12, wherein said at least one data image includes at least one image of another media ~~program~~ session.

15. (Currently Amended) The method according to claim 8, ~~further comprising the steps of:~~
~~detecting a session, currently being processed by said remote unit; determining the media~~
~~transport channel and logical media resources which are associated with said session, and~~ wherein
~~said step of establishing~~ said data session comprises ~~selecting an existing~~ selects said session
media transport channel associated with a media session currently being received at said STB,
and ~~wherein said step of allocating~~ said logical media resources comprises allocating existing
logical media resources for said ~~data session according to said~~ media session ~~logical media~~
~~resources~~ to said data session.

16. (Currently Amended) The method according to claim 15, wherein said ~~allocated~~ logical
media resources include ~~the said~~ a session program number of said media session and a program
identification number other than ~~said session~~ a program identification number of said media
session.

17. (Currently Amended) The method according to claim 8, further comprising ~~the steps of:~~
receiving a session selection from said ~~remote unit~~ STB;
determining ~~the~~ an existing media transport channel and existing logical media resources
which are associated with said session, and
wherein ~~said step of establishing~~ said data session selects said existing session media
transport channel as said downstream media transport channel, and
wherein ~~said step of allocating~~ comprises allocating said logical media resources for said
data session according to said ~~session~~ existing logical media resources.

18. (Currently Amended) The method according to claim 17, wherein said ~~allocated~~ existing
logical media resources include ~~the said~~ a session program number of said session and a program

identification number other than ~~said session~~ program identification number associated with said session.

19. (Currently Amended) The method according to claim 8, wherein said downstream media transport channels are In-Band channels and ~~where said~~ communications from said STB to said addressable Internet destination occur over an upstream channel which is an Out-~~of~~ of-Band channel.

20. – 26. (Canceled)

27. (Currently Amended) ~~Broadband~~ A broadband multimedia system, comprising: a ~~communication bus;~~ a broad band multimedia router; communicatively connected to ~~said communication bus,~~ to a data router and further between a plurality of media sources and a plurality of network transmitters, and configured to encapsulate packets of media streams received from said media sources within addressable packets for switching between inputs and outputs of said broad band multimedia router; and a session manager, communicatively connected to said broad band multimedia router and configured to provide ~~communication bus,~~ ~~said session manager providing~~ routing instructions to said multimedia router; for (i) directing said media streams received from said media sources to said network transmitters for transmitting over a broadband network and for (ii) directing addressable data packets received from said data router to at least a selected one of said network ~~transmitter~~ transmitters for transmitting over said broadband network to a specific destination associated with address information included in said addressable data packets.

28. (Currently Amended) The broadband multimedia system according to claim 27, wherein said session manager ~~receives~~ is further configured to receive data session ~~request~~ requests, ~~authorizes~~ said authorize data sessions in response thereto and ~~allocates~~ allocate network resources for said data ~~session~~ sessions.

29. (Currently Amended) The broadband multimedia system according to claim 28, wherein said session manager ~~assigns~~ is further configured to assign a layer three address to a digital STB communicatively connected to said broadband multimedia system via said broadband network.

30. (Currently Amended) The broadband multimedia system according to claim 28, wherein said session manager ~~assigns~~ is further configured to assign a network channel layer three address to a digital STB communicatively connected to said broadband multimedia system via said broadband network.

31. (Cancelled).

32. (Currently Amended) A system, comprising a session ~~Session~~ manager and IP soft switch, connected to a broadband multimedia router, and configured to establish a data session between an addressable broadband network destination communicatively coupled to the broadband multimedia router and an addressable Internet destination in response to receiving downstream data session requests to a selected from said broadband network destination, ~~wherein said session manager and IP soft switch allocates~~ and to allocate network resources for said data session for transmitting over said broadband network to said broadband network destination.

33. (Currently Amended) The ~~session manager and IP soft switch~~ system according to claim 32, wherein the session manager and IP soft switch is further configured for detecting if said broadband network destination is tuned to a selected broadband channel and, if so, for ~~allocates~~ allocating said network resources according to said selected broadband channel.